

07/19 0540

OIEP

## RAW SEQUENCE LISTING

DATE: 07/24/2001

PATENT APPLICATION: US/09/898,541

TIME: 11:18:13

Input Set : A:\Seq\_1st.txt

Output Set : N:\CRF3\07242001\I898541.raw

## SEQUENCE LISTING

ENTERED

1 (1) GENERAL INFORMATION:

2 (i) APPLICANT: Houghton, Alan

3 Partida, Shirley M.

4 Xu, Yiquing

5 Wang, Jigun

6 (ii) TITLE OF INVENTION: Method and Reagents for Genetic

7 Immunization

8 (iii) NUMBER OF SEQUENCES: 26

9 (iv) CORRESPONDING ADDRESS:

10 (A) ADDRESSEE: Opedaahl & Larson

11 (B) STREET: PO Box 1270

12 (C) CITY: El Paso

13 (D) STATE: TX

14 (E) COUNTRY: USA

15 (F) ZIP: 79901-1270

16 (v) COMPUTER READABLE FORM:

17 (A) MEDIUM TYPE: Diskette, 3.5 inch, 1.44 Mb

18 (B) COMPUTER: IBM Compatible

19 (C) OPERATING SYSTEM: DOS 5.0

20 (D) SOFTWARE: Word Perfect

21 (vi) CURRENT APPLICATION DATA:

C--> 22 (A) APPLICATION NUMBER: US/09/898,541

C--> 23 (B) FILING DATE: 02-Jul-2001

24 (C) CLASSIFICATION:

25 (vii) PRIOR APPLICATION DATA:

26 (A) APPLICATION NUMBER:

27 (B) FILING DATE:

28 (viii) ATTORNEY AGENT INFORMATION:

29 (A) NAME: Marina T. Larson

30 (B) REGISTRATION NUMBER: 32,038

31 (C) REFERENCE/DOCKET NUMBER: MSK.P-012

32 (ix) TELECOMMUNICATION INFORMATION:

33 (A) TELEPHONE: (971) 668-2050

34 (B) TELEFAX: (971) 668-2082

35 (C) TELEX:

36 (2) INFORMATION FOR SEQ ID NO: 1:

37 (i) SEQUENCE CHARACTERISTICS:

38 (A) LENGTH: 9

39 (B) TYPE: amino acid

40 (D) TOPOLOGY: linear

W--> 42 (ii) MOLECULE TYPE:

43 (A) DESCRIPTION: peptide

44 (iii) HYPOTHETICAL: no

45 (v) FRAGMENT TYPE: internal

46 (vi) ORIGINAL SOURCE:

47 (A) ORGANISM: human

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```

48      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 1:
49 Glu Ala Asn Glu Pro Leu Leu Thr Asp
50      1
51 (2) INFORMATION FOR SEQ ID NO: 2:
52      (i) SEQUENCE CHARACTERISTICS:
53          (A) LENGTH: 9
54          (B) TYPE: amino acid
55          (C) TOPOLOGY: linear
W--> 57      (ii) MOLECULE TYPE:
58          (A) DESCRIPTION: peptide
59      (iii) HYPOTHETICAL: no
60      (iv) FRAGMENT TYPE: internal
61      (vi) ORIGINAL SOURCE:
62          (A) ORGANISM: human
63      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 2:
64 Glu Glu Lys Glu Pro Leu Leu Met Asp
65      1
66 (2) INFORMATION FOR SEQ ID NO: 3:
67      (i) SEQUENCE CHARACTERISTICS:
68          (A) LENGTH: 9
69          (B) TYPE: amino acid
70          (C) TOPOLOGY: linear
W--> 72      (ii) MOLECULE TYPE:
73          (A) DESCRIPTION: peptide
74      (iii) HYPOTHETICAL: no
75      (iv) FRAGMENT TYPE: internal
76      (vi) ORIGINAL SOURCE:
77          (A) ORGANISM: human
78      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 3:
79 Asp Ser Pro Leu Leu
80      1
81 (2) INFORMATION FOR SEQ ID NO: 4:
82      (i) SEQUENCE CHARACTERISTICS:
83          (A) LENGTH: 6
84          (B) TYPE: amino acid
85          (C) TOPOLOGY: linear
W--> 87      (ii) MOLECULE TYPE:
88          (A) DESCRIPTION: peptide
89      (iii) HYPOTHETICAL: no
90      (iv) FRAGMENT TYPE: internal
91      (vi) ORIGINAL SOURCE:
92          (A) ORGANISM: human
93      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 4:
94 Glu Asp Thr Pro Leu Leu
95      1
96 (2) INFORMATION FOR SEQ ID NO: 5:
97      (i) SEQUENCE CHARACTERISTICS:
98          (A) LENGTH: 12
99          (B) TYPE: amino acid
100

```

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```

101         (D) TOPOLOGY: linear
W--> 102     (ii) MOLECULE TYPE:
103         (A) DESCRIPTION: peptide
104     (iii) HYPOTHETICAL: no
105     (v) FRAGMENT TYPE: internal
106     (vi) ORIGINAL SOURCE:
107         (A) ORGANISM: human
108     (x) SEQUENCE DESCRIPTION: SEQ ID NO: 5:
109 Pro Ser Arg Asp Arg Ser Arg His Asp Lys Ile His
110      1          10
111 (2) INFORMATION FOR SEQ ID NO: 6:
112     (1) SEQUENCE CHARACTERISTICS:
113         (A) LENGTH: 9
114         (B) TYPE: amino acid
115         (D) TOPOLOGY: linear
W--> 117     (ii) MOLECULE TYPE:
118         (A) DESCRIPTION: peptide
119     (iii) HYPOTHETICAL: no
120     (v) FRAGMENT TYPE: internal
121     (vi) ORIGINAL SOURCE:
122         (A) ORGANISM: human
123     (x) SEQUENCE DESCRIPTION: SEQ ID NO: 6:
124 Ser Gly Gly Ser Gly Gly Ser Gly Gly
125      1
126 (2) INFORMATION FOR SEQ ID NO: 7:
127     (1) SEQUENCE CHARACTERISTICS:
128         (A) LENGTH: 19
129         (B) TYPE: nucleic acid
130         (C) STRANDEDNESS: single
131         (D) TOPOLOGY: linear
132     (ii) MOLECULE TYPE: genomic DNA
133     (iii) HYPOTHETICAL: no
134     (iv) ANTI-SENSE: yes
135     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 7:
136 CGCCACCAGA CAGATAGC      19
137 (2) INFORMATION FOR SEQ ID NO: 8:
138     (1) SEQUENCE CHARACTERISTICS:
139         (A) LENGTH: 45
140         (B) TYPE: nucleic acid
141         (C) STRANDEDNESS: single
142         (D) TOPOLOGY: linear
143     (ii) MOLECULE TYPE: genomic DNA
144     (iii) HYPOTHETICAL: no
145     (iv) ANTI-SENSE: no
146     (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 8:
147 GCCTCCTGAA CTCGCGAAC CACCAGAAGG GGAAACACAT CTGCC      45
148 (2) INFORMATION FOR SEQ ID NO: 9:
149     (1) SEQUENCE CHARACTERISTICS:
150         (A) LENGTH: 48

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```

154      (B) TYPE: nucleic acid
155      (C) STRANDEDNESS: single
156      (D) TOPOLOGY: linear
157      (ii) MOLECULE TYPE: genomic DNA
158      (iii) HYPOTHETICAL: no
159      (iv) ANTI-SENSE: yes
160      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 9:
161 TGTGGTGGTT TGGAGGATC AGGAGGATC ATTACCATTG CTGTAGTG 48
162 (2) INFORMATION FOR SEQ ID NO: 10:
163      (i) SEQUENCE CHARACTERISTICS:
164          A) LENGTH: 12
165          B) TYPE: nucleic acid
166          C) STRANDEDNESS: single
167          D) TOPOLOGY: linear
168      (ii) MOLECULE TYPE: genomic DNA
169      (iii) HYPOTHETICAL: no
170      (iv) ANTI-SENSE: no
171      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 10:
172 GGTTCGCTCG TACCTCTG CG      22
173 (2) INFORMATION FOR SEQ ID NO: 11:
174      (i) SEQUENCE CHARACTERISTICS:
175          A) LENGTH: 19
176          B) TYPE: nucleic acid
177          C) STRANDEDNESS: single
178          D) TOPOLOGY: linear
179      (ii) MOLECULE TYPE: genomic DNA
180      (iii) HYPOTHETICAL: no
181      (iv) ANTI-SENSE: yes
182      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 11:
183 CGCCACCAGA CATATAGC      19
184 (2) INFORMATION FOR SEQ ID NO: 12:
185      (i) SEQUENCE CHARACTERISTICS:
186          A) LENGTH: 12
187          B) TYPE: nucleic acid
188          C) STRANDEDNESS: single
189          D) TOPOLOGY: linear
190      (ii) MOLECULE TYPE: genomic DNA
191      (iii) HYPOTHETICAL: no
192      (iv) ANTI-SENSE: no
193      (xi) SEQUENCE DESCRIPTION: SEQ ID NO: 12:
194 GGTTCGCTCG TACCTCTG CG      22
195 (2) INFORMATION FOR SEQ ID NO: 13:
200      (i) SEQUENCE CHARACTERISTICS:
201          A) LENGTH: 42
202          B) TYPE: nucleic acid
203          C) STRANDEDNESS: single
204          D) TOPOLOGY: linear
205      (ii) MOLECULE TYPE: genomic DNA
206      (iii) HYPOTHETICAL: no

```

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```

207      (iv) ANTI-SENSE: yes
208      (ii) SEQUENCE DESCRIPTION: SEQ ID NO: 13
209 CTCAGCATAG CTTTGATAGT GATTCTGGT GCTCTAGAA CG      42
211 (2) INFORMATION FOR SEQ ID NO: 14:
212     (i) SEQUENCE CHARACTERISTICS:
213         (A) LENGTH: 12
214         (B) TYPE: nucleic acid
215         (C) STRANDEDNESS: single
216         (D) TOPOLOGY: linear
217     (ii) MOLECULE TYPE: genomic DNA
218     (iii) HYPOTHETICAL: no
219     (iv) ANTI-SENSE: no
220     (v) SEQUENCE DESCRIPTION: SEQ ID NO: 14
221 CGTTCTAGAA CCACTAAGAA CCACTAAGAA CGCTATGCTG AG      42
223 (2) INFORMATION FOR SEQ ID NO: 15:
224     (i) SEQUENCE CHARACTERISTICS:
225         (A) LENGTH: 11
226         (B) TYPE: nucleic acid
227         (C) STRANDEDNESS: single
228         (D) TOPOLOGY: linear
229     (ii) MOLECULE TYPE: genomic DNA
230     (iii) HYPOTHETICAL: no
231     (iv) ANTI-SENSE: yes
232     (v) SEQUENCE DESCRIPTION: SEQ ID NO: 15
233 GAGTGCAGGC TGTTCGTT C      31
235 (2) INFORMATION FOR SEQ ID NO: 16:
236     (i) SEQUENCE CHARACTERISTICS:
237         (A) LENGTH: 11
238         (B) TYPE: nucleic acid
239         (C) STRANDEDNESS: single
240         (D) TOPOLOGY: linear
241     (ii) MOLECULE TYPE: genomic DNA
242     (iii) HYPOTHETICAL: no
243     (iv) ANTI-SENSE: no
244     (v) SEQUENCE DESCRIPTION: SEQ ID NO: 16
245 CCGTCACTCA TCAATCAATA C      21
247 (2) INFORMATION FOR SEQ ID NO: 17:
248     (i) SEQUENCE CHARACTERISTICS:
249         (A) LENGTH: 11
250         (B) TYPE: nucleic acid
251         (C) STRANDEDNESS: single
252         (D) TOPOLOGY: linear
253     (ii) MOLECULE TYPE: genomic DNA
254     (iii) HYPOTHETICAL: no
255     (iv) ANTI-SENSE: no
256     (v) SEQUENCE DESCRIPTION: SEQ ID NO: 17
257 TACTGCTATG CCAATGATAT CAGTAACT A      31
259 (2) INFORMATION FOR SEQ ID NO: 18:
260     (i) SEQUENCE CHARACTERISTICS:

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## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/898,541

DATE: 07/24/2001

TIME: 11:18:14

Input Set : A:\Seq\_1st.txt

Output Set: N:\CRF3\07242001\I898541.raw

L:22 M:220 C: Keyword misspelled or invalid format, [(A) APPLICATION NUMBER:]  
L:23 M:220 C: Keyword misspelled or invalid format, [(B) FILING DATE:]  
L:42 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=1  
L:57 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=2  
L:72 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=3  
L:87 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=4  
L:102 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=5  
L:117 M:246 W: Invalid value of Alpha Sequence Header Field, [MOLECULE TYPE:], SeqNo=6